PROGRESS REPORT

U.S. Clean Energy Efforts that Help Advance Sustainable Energy for All

It is almost two years since the UN Secretary General's Sustainable Energy for All (SE4ALL) initiative was launched and the United States announced $2 billion in support of the initiative at Rio+20. During this period, the U.S. government has continued to pursue a strong effort to advance clean energy and President Obama's 2013 Climate Action Plan has given greater emphasis to our international clean energy engagement. In addition, two major Presidential initiatives have been launched—Power Africa and the U.S.-Asia Comprehensive Energy Partnership. These initiatives involve significant resource commitments and a focus of both initiatives will be financing and investment in clean energy, especially from the Overseas Private Investment Corporation (OPIC) and the U.S. Export-Import Bank (Ex-Im).

Many agencies contribute to the overall U.S. government-wide efforts in clean energy. These programs are consistent with and help advance the aspirational goals of the Sustainable Energy for All Initiative in energy access, energy efficiency, and renewable energy. Highlighted below are examples of several noteworthy activities focusing on technical assistance, clean energy technology partnerships, and financing and mobilization of private capital.

1. Technical Assistance for Improving the Enabling Environment

- **Power Africa Advisors:** Under the Power Africa Initiative, USAID is funding transactional and technical advisors in Ethiopia, Ghana, Kenya, Liberia, Nigeria, and Tanzania to help develop projects such as the 1000 MW Ethiopia Corbetti Geothermal Project. These advisors identify and seek to overcome bottlenecks to project development and investment and provide advice on how to create a more favorable regulatory and investment environment.
- **U.S. – Asia Pacific Comprehensive Energy Partnership (USACEP):** USACEP aims to expand electricity access to the estimated 387 million people in the Asia Pacific currently without electrical power. To further this goal, the United States has conducted workshops and training on clean energy financing, rural electrification using distributed renewable energy, energy regulation, renewable integration, and electrical interconnection. Beginning in July 2014, OPIC and the U.S. Trade and Development Agency (USTDA) will open a program office in Bangkok to facilitate the financing of clean energy projects in the region. OPIC has committed to make available up to $1 billion in financing and insurance for sustainable energy projects in support of the USACEP initiative. USTDA more than tripled its investments in sustainable energy sector activities in Southeast Asia in fiscal year 2013, including support for geothermal power, wind power development, power grid efficiencies, and waste-to-energy/biomass power.
- **Connecting the Americas 2022 (C22):** C22 is a Presidential initiative which was launched at the 2012 Cartagena Summit of the Americas with the goal of increasing access to electricity and creating a more favorable environment for renewable energy sources by interconnecting power grids from Canada to Tierra del Fuego, Argentina.

Under the initiative, the U.S. government is promoting a more favorable investment climate by supporting the rapidly growing Central American regional power market and providing technical assistance for market oriented policy reforms in Central America and South America, and the Caribbean.

- **Geothermal Energy Development**: The United States is working to overcome barriers to geothermal development. Power Africa has a group that is focusing on these issues to unlock geothermal potential in East Africa. In April 2014, more than 100 participants from over 35 countries attended a workshop in Washington, D.C. to explore ways to reduce geothermal projects risks. Four sessions highlighted opportunities to improve: policy, legal, and regulatory structures that need to be in place for project success; best practices for successful geothermal exploration; geothermal drilling cost-effectiveness; and best approaches to ensure successful geothermal project management. An industry, government, and multi-lateral development recommendations document is being prepared as an output of the workshop.
- **Low Emission Development Strategies:** The U.S. Government has established partnerships with 25 countries as part of the U.S. Enhancing Capacity for Low Emission Development Strategies (EC-LEDS) program. From improving Bangladesh's ability to measure its wind power potential to helping Mexico model the most efficient ways to achieve its carbon emission reduction and renewable energy goals, U.S. technical assistance is helping countries get on a low carbon growth path for a more sustainable future.
- **Pakistan Power Reform**: The U.S. Agency for International Development (USAID) is providing technical assistance to further energy policy and regulatory development; reform and reduce losses in the electricity distribution system; rehabilitate generation units; and improve the high-voltage transmission system.
- **USAID Indonesia Clean Energy Development (ICED) Program**: USAID's $16.2 million, 3.5-year long ICED program partners with the Ministry of Energy and Mineral Resources to help the Government of Indonesia reach its goal of expanding the domestic energy supply while reducing greenhouse gas emissions by 41%. The program facilitates the development of energy efficiency, on-grid/off-grid renewable energy pilot programs, and dissemination of results and lessons learned. The program also focuses on capacity building of independent power producers and both public and private financial institutions to enhance their understanding and support for clean energy development.
- **USTDA India Clean Energy Program:** USTDA's growing support for the deployment of clean energy projects in India spans renewables, off-grid energy access, smart grid efficiency and cleaner shale gas alternatives to fossil fuels. USTDA's clean energy initiatives advance the work of the interagency U.S.-India Partnership to Advance Clean Energy (PACE) and the U.S.-India Energy Cooperation Program (ECP) involving substantial commitments by governments and private sector partners in both countries. The Promoting Energy Access through Clean Energy (PEACE) initiative was created under PACE to harness commercial enterprise to bring clean energy access to un-served and underserved Indian villages, capture lessons learned, and develop best practices.
- **USAID Catalyzing Clean Energy in Bangladesh (CCEB) Program**: USAID is investing approximately $15 million over five years to support the CCEB program's goals to promote energy security, economic growth, and climate change mitigation. CCEB will build on past USAID efforts and work with the Bangladesh Energy

Regulatory Commission, Government of Bangladesh (GOB) ministries and agencies, energy utilities, and energy end-users to strengthen the energy regulatory environment, increase energy efficiency, and promote clean energy development through technical assistance, capacity building, and incentive programs.

- **USAID Bangladesh Rural Electrification and Renewable Energy Development Project**: USAID is investing $8 million in the World Bank's four-year rural electrification project to support GOB objectives to bring the entire country under electricity service by the year 2020 with improved reliability and quality; increase the energy sector's efficiency and make the power sector financially viable; and to help commercialize the energy sector by increasing private sector participation. To accomplish these goals, the project will install solar power systems in rural homes and businesses and provide small loans to develop renewable energy power and irrigation.

2. Participation in Clean Energy Technology Partnerships

- **The Clean Energy Ministerial (CEM) and the Clean Energy Solutions Center:** Energy leaders from 23 governments announced new and expanded actions that will enhance clean energy supply, improve energy efficiency and expand clean energy access around the world at CEM5 in May 2014, in Seoul, South Korea. The U.S. Department of Energy leads or co-leads three initiatives that support SE4All objectives. The Clean Energy Solutions Center serves as a knowledge platform, offering no-cost expert policy assistance to countries looking to implement clean energy policies and programs both within and external to the CEM in partnership with more than 35 leading clean energy organizations, including IEA, IRENA and UN-Energy. The Solutions Center is looking to collaborate with SE4ALL hubs to ensure a coordinated approach to knowledge management and leverage existing platforms and partnerships. Global LEAP is expanding energy access by providing quality assurance for off-grid solar lights and mini-grids. And governments are working together through the Super-efficient Equipment and Appliance Deployment (SEAD) initiative to accelerate the transition to energy efficient markets with the recent launch of the SEAD Global Efficiency Medal for lighting products.
- **Africa Energy Ministerial**: On June 3-4, 2014, the Government of Ethiopia and the Government of the United States will co-host the U.S.-Africa Energy Ministerial (AEM) in Addis Ababa, Ethiopia. AEM will focus on the theme of "Catalyzing Sustainable Energy Growth in Africa" and provide a forum for major announcements and commitments that support energy development throughout Africa. The Ministerial will showcase African leadership in energy development, explore strategies and effective practices across Africa and the United States for accelerating development of clean energy sources and adoption of energy efficient technologies, review best practices in oil and gas resource development, and highlight progress on President Obama's Power Africa Initiative.
- **Global Gas Flaring Reduction (GGFR):** The U.S. is a contributor to the GGFR public-private partnership. Over the past decade the GGFR has facilitated critical dialogue between governments and industries worldwide to foster collaboration on policies and projects to combat greenhouse gas emissions. Consequently, global flaring has decreased

by almost 20% preventing more than 270 million tons of CO2 emissions equivalent between 2005 and 2011 according to satellite data estimates.

- **Global Alliance for Clean Cookstoves:** The United States has committed up to $125 million over 5 years in support of the Alliance and the clean cookstoves sector, towards helping the Alliance achieve its goal of enabling 100 million homes to adopt clean and efficient cooking solutions by 2020. This commitment spans 11 federal agencies and comprises $60 million in research, $15 million in field implementation activities, and up to $50 million in financing. Since its launch in 2010, the Alliance has initiated a process to develop first-ever global clean cookstoves standards (including establishing interim standards in 2012); launched Country Action Plans in eight focus countries; driven over $50 million of new private sector investment into the sector; and attracted over $200 million in parallel investments (not including the U.S. commitment) and carbon financing into the sector.
- **Energy-Agricultural Grand Challenge:** USAID, the governments of Sweden and Germany, Duke Energy, and OPIC have partnered to create a $50 million program to support innovation and the scaling of solutions at the clean energy/agricultural nexus. To date, $12 million in funding has been invested in early stage innovators working on clean energy solutions for irrigation, cold storage, more efficient processing, and decentralized power solutions.

3. Financing and Mobilization of Private Capital

- **Power Africa:** For its first, five-year phase through 2018 the U.S. government has committed more than $7 billion in financial support and loan guarantees to Power Africa and has already leveraged two dollars in private sector investment commitments for every U.S. government dollar committed. Through Power Africa, the U.S. government approved a loan guarantee for the 10 MW Kiwira Hydro Project in Tanzania's agricultural corridor. In Kenya, the Government of Kenya, project financiers, and Aeolus Kenya Ltd. closed agreements for the funding and construction of the Kinangop Wind Park. In 2014, energy sector activities, including Power Africa projects, will be the single largest focus of USTDA's Africa program.
- **Ghana SE4ALL Mission:** A recent third SE4ALL mission to Ghana marked progress with the establishment of a USAID funded transaction advisor in the Ghanaian SE4ALL Coordinator's Office, delivery of an energy project economic and financial analysis model, substantive discussions with USAID and the European Union on technical feasibility assistance, and talks with multilateral partners and private sector firms on financing options for SE4ALL projects. Moving forward, the U.S. will continue working with Ghana on SE4ALL project specification, development of the Investment Prospectus, and linking advances in institutional cookstoves to private sector financing.
- **Bangladesh SE4ALL Investment Prospectus:** An expert team has worked with the private and public sector in developing an investment framework and consideration of 20 proposals under the SE4ALL process, including two clean cooking projects, one next generation solar home system project, three mini-grid projects ranging from 3 KW to 100 KW in capacity, several LED and high-efficiency manufacturing projects, one waste to energy and organic fertilizer project, and one brick kiln conversion project. Several of these projects show potential for funding and scale-up. These and other projects will be highlighted in an investment prospectus and upcoming public Investment Forum.

- **U.S. – Africa Clean Energy Finance**: The U.S. – Africa Clean Energy Finance Initiative (U.S. – ACEF) was announced in 2012, and funded with $20 million from the State Department and executed by OPIC and USTDA. The objective of the four-year program is to catalyze much-needed private sector investment in clean energy projects in Africa by providing support for early stage project development costs, including engineering, legal, consulting, and other third party costs. With a $15 million budget and average project preparation deployment amount of $500,000 per project, OPIC is on track to stimulate over $1 billion in additional clean energy investments. USTDA has approved funding for 6 projects in concentrated solar power, small hydropower, and innovative fuel cell diesel-replacement technology, expected to support 325 MW in new generation with an expected $1.28 billion in financing.
- **Millennium Challenge Corporation (MCC):** MCC provides sizeable grant funding to countries that are strong reformers through multi-year compacts. Several of MCC's existing programs focus on energy, including a $350.7 million compact in Malawi to revitalize the country's power sector, and the $332.5 million Green Prosperity Project in Indonesia, designed to increase productivity and reduce reliance on fossil fuels by providing technical and financial assistance for projects in renewable energy and natural resource management. MCC is also developing a $498 million compact with Ghana to improve the reliability and quality of power, and is also performing due diligence on a second compact with Tanzania designed to increase electricity access and improve financial sustainability in the power sector. MCC is developing a Threshold Program in Nepal which is expected to include an energy sector program that will focus on better utilization and development of the country's hydro-dependent electrical system. Finally, MCC is in the initial stages of program identification in Sierra Leone, which could include a transmission project to evacuate power from expansion of an existing hydro project.
- **The U.S. Overseas Private Investment Corporation (OPIC):** OPIC has continued its major support for renewable energy projects across the sector and in all regions of the world. In 2013 OPIC committed $1.2 billion toward renewable energy projects worldwide. Representative transaction commitments include solar power projects in Peru and Tanzania, wind power projects in Pakistan, and hydro in Chile.
- **The U.S. Trade and Development Agency (USTDA):** USTDA increased its global commitments in clean energy programming from 37 percent in FY 2012 to 47 percent of total program obligations in FY 2013, to assist partner countries in expanding the supply of renewable energy sources and promoting the use of cleaner more efficient technologies.
- **Export-Import (EX-IM) Bank:** In FY 2013 EX-IM Bank authorized $257 million for supporting renewable-energy exports in wind, solar, biomass and other renewable-energy industries, primarily in Central and South America.
- **Treasury Support for Multilateral Funds**: The Program for Scaling Up Renewable Energy in Low Income Countries (SREP) is a $550 million program that helps eight countries—Ethiopia, Honduras, Kenya, Liberia, Maldives, Mali, Nepal, and Tanzania—utilize renewable energy to expand energy access, spur economic growth, and reduce vulnerability to energy shocks. The United States has contributed $41 million to SREP, which is one of the Climate Investment Funds. SREP funds are used to build renewable energy infrastructure to expand energy access and enhance economic security and

catalyze further investments from the private sector. Across the eight country investment plans, SREP funds will support the establishment of 954 megawatts of renewable energy capacity.